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Indian Standard

### SPECIFICATION FOR GYMNASTIC EQUIPMENT — SURFACES FOR FLOOR EXERCISES — MATS

( ISO Title : Gymnastic Equipment — Surfaces for Floor Exercises — Mats )

#### **National Foreword**

This Indian Standard, which is identical with ISO 5906-1980 'Gymnastic equipment — Surfaces for floor exercises — Mats' issued by the International Organization for Standardization (ISO), was adopted by the Indian Standards Institution on the recommendation of the Sports Goods Sectional Committee and approved by the Consumer Products and Medical Instruments Division Council.

Comma (,) has been used as a decimal marker while in Indian Standards the current practice is to use a point (.) as the decimal marker.

Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'.

In this Indian Standard the following International Standards are referred to whose corresponding Indian Standards are also given. Read the corresponding Indian Standard wherever a reference to an International Standard appears:

International Standard

ISO 5903-1981
Gymnastic equipment —
Landing mats and surfaces
for floor exercises —
Determination of hardness
and impact damping

ISO 5904-1981
Gymnastic equipment —
Landing mats and surfaces
for floor exercises —
Determination of resistance
to slipping

ISO 5907-1980
Gymnastic equipment —
Surfaces for floor
exercises—Boards

Corresponding Indian Standard

IS: 10830-1984
Specification for gymnastic equipment — Landing mats and surfaces for floor exercises —
Determination of hardness and impact damping

IS: 10888-1984
Specification for gymnastic equipment — Landing mats and surfaces for floor exercises — Determination of resistance to slipping (under print).

IS: 10833-1984
Specification for gymnastic equipment — Surfaces for floor exercises — Boards

Degree of Correspondance

Identical

Identical

Identical

Adopted 23 January 1984

O June 1984, ISI

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#### 1 Scope and field of application

This International Standard specifies the characteristics of mats for floor exercises for use in competitions and training. The determination of these characteristics shall ensure that

- a) for competitions and training, mats for floor exercises of the same hardness and shock absorption are used, the surface of which presents in all directions the same resistance to slipping, depending on their use;
- b) the risk of injury to the gymnast, by slipping, is reduced.

#### 2 References

ISO 5903, Gymnastic equipment — Landing mats and surfaces for floor exercises — Determination of hardness and impact damping.

ISO 5904, Gymnastic equipment — Landing mats and surfaces for floor exercises — Determination of resistance to slipping.

ISO 5907, Gymnastic equipment — Surfaces for floor exercises — Boards.

#### 3 Dimensions

The dimensions of the mat for floor exercises shall be those indicated in table 1.

Table 1

Dimensions in millimetres

Length	Width	Height	
12 000 ± 60	1 500 <u>+</u> 7,5	20 ± 1,5	
12 000 ± 60	2000 ± 10	20 ± 1,5	

#### 4 Material

The manufacturer is free to choose the material for the mat for floor exercises, observing, however, the requirements on hardness and shock absorption and the degree of resistance to slipping as given in this International Standard.

#### 5 Design

The surface for floor exercises can consist of several mat-strips placed side-by-side with practically no gap. The surface available for the floor exercises, having a size of 12 000 mm  $\times$  12 000 mm, shall be clearly marked with another colour for identification.

NOTE — The International Gymnastic Federation (IGF) prescribes a surface of 12 000 mm  $\times$  12 000 mm for floor exercises at international competitions. This surface can be a mat for floor exercises as given in this International Standard which is placed on the gymnasium floor, or a board for floor exercises, in accordance with ISO 6907.

According to the choice of the manufacturer, the height of the mat may consist of one layer or of several adhering layers.

A safety zone of 1 m shall be provided around the surface for floor exercises. It shall have the same material characteristics and the same height as the surface for floor exercises and shall be clearly marked in a distinct colour.

#### 6 Requirements and Tests

#### 6.1 Hardness and shock absorption

The determination of hardness and shock absorption shall be carried out in accordance with ISO 5903.

Table 2

Characteristic	Total mean value	Field of fluctuation of the mean values of the individual measuring points max.
Depth of penetra- tion, P, mm	15 to 25	4
Height of re- bound, R, mm	120 to 160	10

The measurements shall be carried out on two mats for floor exercises and mat-strips respectively which are evenly placed one above the other and at nine measuring points evenly distributed on the landing surface.

If indications concerning the number N of rebounds of the test piece and concerning the coefficient of shock absorption  $\mathcal E$  are required, see ISO 5903.

1S: 10832 - 1984 ISO 5906 - 1980

## 6.2 Resistance to slipping of the landing surface

The determination of resistance to slipping shall be carried out in accordance with ISO 5904.

The measurements shall be carried out from one side to the other in a longitudinal and transverse direction at any point of the mat for floor exercises and mat-strips.

Table 3

Characteristic	Total mean value	Field of fluctuation of the mean values of the individual measuring points max.	
Average tensile force, F, N	30 to 70	15	